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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/868,209	06/14/2001	Stephen G. Dick	I-2-00130.1US	6986
24374	7590	06/21/2005	EXAMINER	
VOLPE AND KOENIG, P.C. DEPT. ICC UNITED PLAZA, SUITE 1600 30 SOUTH 17TH STREET PHILADELPHIA, PA 19103			SHEW, JOHN	
			ART UNIT	PAPER NUMBER
			2664	

DATE MAILED: 06/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/868,209

Applicant(s)

DICK ET AL.

Examiner

John L Shew

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/5/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 9-11,15-16 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-8 is/are allowed.
- 6) ☒ Claim(s) 1,12-14 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>08222001,11122003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 1 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. A method of steps are descriptive material per se and are not statutory because they are neither physical "things" nor statutory processes. Such claimed steps do not define any structural and functional interrelationships between the structure and other claimed aspects of the invention which permit the structure's functionality to be realized. The language of the claim raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12, 13, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dahlman et al. (Patent number 6606313) in view of Natali et al. (Patent number 5696762).

Claim 12, Dahlman teaches a method for detecting a coded signature (FIG. 7, column 5 lines 31-46) referenced by the Matched Filter 206 output to Accumulator 208 for a unique signature pattern, comprising a predetermined plurality of symbols (column 1 lines 40-50) referenced by the preamble symbols, over a CDMA air interface (column 1 lines 40-45, column 2 lines 5-16, Claim 7 lines 1-3) referenced by the CDMA system using RACH for determining mobile station access, the method comprising the steps of a) receiving a series of transmitted chips corresponding to said predetermined plurality of symbols (column 1 lines 45-48, FIG. 4, column 2 lines 43-49, FIG. 6, column 5 lines 31-49) referenced by the transmission of the preamble of a random access channel wherein each preamble are composed of 1023 chip symbols which in turn are received by the antenna of the Base Station, b) inputting said chips into a matched filter (FIG. 6, column 5 lines 31-39) referenced by the Matched Filter 206 of the Base Station

receiving the RACH preamble from the antenna, d) correlating said plurality of outputs with a set of predefined signature (FIG. 6, column 5 lines 39-49) referenced by the Accumulators 208-208l wherein each accumulator is for a unique signature, and e) repeating step d) until the coded signature is identified (FIG. 6, column 5 lines 39-57) referenced by the repeated structure of the Accumulators one for each signature and the Threshold Detection units 210-210l for identifying the unique signature.

Dahlman does not teach existence of transmitting range ambiguity nor storing a plurality of outputs from said matched filter said plurality of outputs being greater in number than said plurality of symbols.

Natali teaches a CDMA air interface where transmitting range ambiguity exists (Abstract lines 1-7, column 2 lines 1-3) referenced by the CDMA communication system for acquiring the RAC with uncertainty in time-of-arrival, storing a plurality of outputs from matching filter (Figure 5) referenced by the PN Matched Filter Bank outputs placed in different Frequency Bins, said plurality of outputs being greater in number than said plurality of symbols (FIG. 6, column 4 lines 31-41) referenced by the Matched Filter Algorithm storing 1020 outputs representing 4 samples of the PN sequence.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the match filter algorithm of Natali to the power signature acquisition system of Dahlman for the purpose of rapidly acquiring the RAC with relatively large uncertainty in carrier frequency and time-of-arrival as suggested by Dahlman (column 2 lines 1-3).

Claim 13, Dahlman teaches the coded signature is coherently coded (FIG. 6, column 5 lines 50-65) referenced by the accumulator 208 wherein accumulation is performed for just enough time to provide a good estimate which does not provide for time-of-arrival tolerance thus the coherence of the coded signal.

Claim 14, Dahlman teaches a power signature acquisition system.

Dahlman does not teach the coded signature is non-coherently coded.

Natali teaches the coded signature is non-coherently coded (column 1 lines 58-64, column 5 lines 15-24) referenced by the $\frac{1}{2}$ PN rate spacing of the filters for noncoherent combination of the signal detection.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the match filter algorithm of Natali to the power signature acquisition system of Dahlman for the purpose of rapidly acquiring the RAC with relatively large uncertainty in carrier frequency and time-of-arrival as suggested by Dahlman (column 2 lines 1-3).

Allowable Subject Matter

3. Claims 3-8 are allowed.

Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if the base claim rejection is resolved and rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Citation of Prior Art

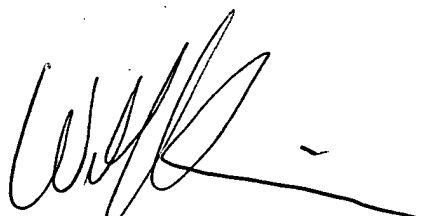
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Patent 6259724, Esmailzadeh discloses random access in a mobile telecommunications system. Patent 6594248, Karna et al. discloses data transmission method and a radio system. Patent 6549564, Popovic discloses random access in a mobile telecommunications system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John L Shew whose telephone number is 571-272-3137. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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